Weidmüller

SL-MOD-GW Modbus/TCP gateway

Quick start

This document is a reference guide only and must be used in conjunction with the *SL-MOD-GW User manual*.

IGSLMODGW-1002

SAFETY PRECAUTIONS

ELECTRICAL HAZARD

- This equipment must be installed and serviced only by qualified personnel. Such work should be performed only after reading the *SL-MOD-GW User manual* in its entirety.
- Before performing visual inspections, tests, or maintenance on this equipment, disconnect all sources of electric power. Assume that all circuits are live until they have been completely de-energized, tested, and tagged. Pay particular attention to the design of the power system. Consider all sources of power, including the possibility of backfeeding.
- Apply appropriate personal protective equipment and follow safe electrical practices.
- Turn off all power supplying the equipment in which the *SL-MOD-GW* is to be installed before installing, wiring or removing the *SL-MOD-GW*.
- Always use a properly rated voltage sensing device to confirm that power is off.
- The successful operation of this equipment depends upon proper handling, installation, and operation. Neglecting fundamental installation requirements may lead to personal injury as well as damage to electrical equipment or other property.

Failure to follow these instructions could result in death or serious injury!

INTRODUCTION

Package Contents

- *SL-MOD-GW* unit
- Quick start
- 2-pin terminal block plug
- 6-pin terminal block plug

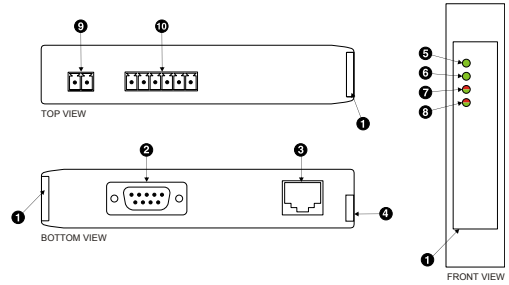
Documentation and Additional Resources

This Quick start must be used in conjunction with the *SL-MOD-GW User manual*.

Quick start checklist

- Obtain a copy of the *SL-MOD-GW User manual* and read it properly and in its entirety.
- Mount the unit.
- Connect the power. Do not connect yet serial ports.
- Configure the Ethernet communications settings with a web browser (using an Ethernet crossover cable) or with a terminal program like *HyperTerminal* (using a null modem cable)
- Configure the serial line communication settings.
- Configure the operational aspects of the device.
- Wire serial line interfaces.

DESCRIPTION



❶ Clear front cover
❷ RS-232 connector
❸ Ethernet connector
❹ DIN rail clip
❺ Power LED
❻ Ethernet link LED
❼ Status 1 LED
❽ Status 2 LED
❾ Power terminals
❿ RS-485/RS-422 terminals

INSTALLATION

Regulatory notes

1. The *SL-MOD-GW* is suitable for use in non-hazardous locations only.
2. The *SL-MOD-GW* is not authorized for use in life support devices or systems.
3. Wiring and installation must be in accordance with applicable electrical codes in accordance with the authority having jurisdiction.
4. This is a Class A device and intended for commercial or industrial use. This equipment may cause radio interference if used in a residential area; in this case it is the operator's responsibility to take appropriate measures.
5. The precondition for compliance with EMC limit values is strict adherence to the guidelines specified in the *SL-MOD-GW User manual*. This applies in particular to the area of grounding and shielding of cables.

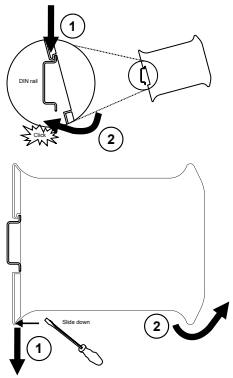
FCC Notice (USA only)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Industry Canada Notice (Canada only)

This Class A digital apparatus complies with Canadian ICES-003.

DIN rail mounting and removal



To mount the unit on a DIN rail, slot the top part of the *SL-MOD-GW* into the upper guide of the rail and lower the enclosure until the bottom of the red hook clicks into place.

To remove the *SL-MOD-GW* from the DIN rail, use a screw driver as a lever by inserting it in the small slot of the red hook and push the red hook downwards. Then remove the unit from the rail by raising the bottom front edge of the enclosure.

Mounting rules

- No water splash and water drops
- No aggressive gas, steam or liquids
- Avoid dusty environments.
- Avoid shock or vibration
- Do not exceed the specified operational temperatures and humidity range.
- Mount inside an electrical switchboard or control cabinet.
- Make sure there is sufficient air ventilation and clearance to other devices mounted next to the unit.
- Observe applicable local regulations like EN60204 / VDE0113.

Before connecting anything

1. Before installing or removing the unit or any connector, ensure that the system power and external supplies have been turned off.
2. Check the system supply voltage with a multimeter for correct voltage range and polarity.
3. Connect the power supply cable and switch on the system power. Check if the Power LED is lit.
4. Turn off system power.
5. Connect all I/O cables.
6. Once you are certain that all connections have been made properly, restore the power.

Power terminals pin assignment

Before connecting power please follow the rules in the section called "SAFETY PRECAUTIONS" and the section called "Before connecting anything".

1	V+	Positive voltage supply (10 - 30 V DC)
2	V-	Negative voltage supply, DC power return

Make sure that the polarity of the supply voltage is correct before connecting any device to the serial ports! A wrong polarity can cause high currents on the ground plane between the V- power supply pin and the serial port ground pins, which can cause damage to the device.

RS-485/RS-422 terminals pin assignment

Please observe the wiring, grounding and shielding instructions decribed in the *SL-MOD-GW User manual*!

RS-485

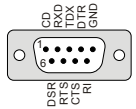
RS-422

Pin	RS-485	RS-422	Description
3	GND	GND	Modbus Common
4	D+	TX+	Modbus D1 or TXD1
5	D-	TX-	Modbus D0 or TXD0
6		GND	Modbus Common
7		RX+	Modbus RXD0
8		RX-	Modbus RXD1

⚠ Do *not* connect the cable shield to the GND pins! Use an external chassis ground connection to terminate the shield.

RS-232 connector pin assignment

Pinout as per EIA-574 DTE. Please observe the cabling instructions decribed in the *SL-MOD-GW User manual*!



1	DCD	(unused)	in
2	RXD	Receive data	in
3	TXD	Transmit data	out
4	DTR	(unused)	out
5	GND	Signal ground	
6	DSR	(unused)	in
7	RTS	(unused)	out
8	CTS	(unused)	in
9	RI	(unused)	in

Ethernet & IP configuration

Before configuring the *SL-MOD-GW*, obtain a unique static IP address, subnet mask, and default gateway address from your network administrator.

Use a web browser or a terminal program like *HyperTerminal* to configure the *SL-MOD-GW*'s TCP/IP settings with this information.

The factory default IP address of the *SL-MOD-GW* is 192.168.1.130.

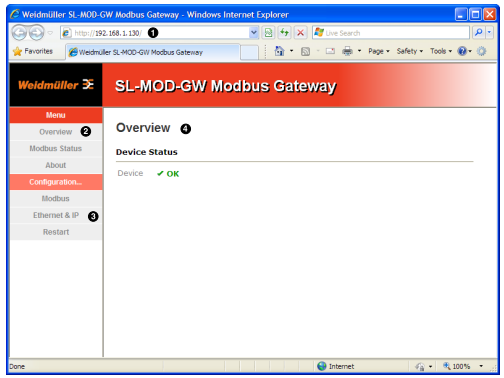
In order to connect to the *SL-MOD-GW* via TCP/IP, your PC must be on same IP subnet as the gateway.

IP setup using a terminal program like HyperTerminal

Please consult the *SL-MOD-GW User manual* for further details on this method.

Configuring and commissioning

The configuration pages are accessed using the integrated web server:



❶ Gateway IP address
❷ Main menu
❸ Configuration sub-menu
❹ Information area

Please consult the *SL-MOD-GW User Manual* for further details how to set-up the *SL-MOD-GW*.

MAINTENANCE AND TROUBLESHOOTING

Maintenance

The *SL-MOD-GW* does not require maintenance, nor does it contain any user-serviceable parts. If the *SL-MOD-GW* requires service, contact us directly for assistance.

Refer to the technical support contacts provided at the end of this document.

Do not open the *SL-MOD-GW* enclosure; this will void the product warranty.

Diagnostics and troubleshooting

⚠ **ELECTRICAL HAZARD**

- This equipment must be installed and serviced only by qualified personnel.
- Qualified persons performing diagnostics or troubleshooting that require electrical conductors to be energized must comply with and follow safe electrical work practices.

Failure to follow these instructions could result in death or serious injury!

The status web pages served by the *SL-MOD-GW*, display diagnostic data that may be helpful in troubleshooting communication problems.

In addition the *About* page contains information about your specific *SL-MOD-GW*, including the serial number and media access control (MAC) address. Some of these pages show a *Clear Counter* button. Clicking this button clears all cumulative readings shown on this particular page. If power to the *SL-MOD-GW* is lost, all values reset to zero.

LED indicators

A LED test is exercised at power-up, cycling each LED off, green and then red for approximately 0.25 seconds. At the same time the power-on self test of the device is performed.

The following table outlines the indicator condition and the corresponding status after the power-on self test has been completed:

LED	Function	Condition	Indication
Power	Power	Off	No power applied to the device.
		Green	Power supply OK
Link	Ethernet link	Off	No Ethernet link
		Green	Ethernet link OK
Sta-tus1	Device status	Off	The device has an unrecoverable fault; may need replacing.
		Flashing green 1 s rate	Device operational but needs commission-ing due to configuration missing, incomplete or incorrect.
		Green	The device is operating in normal condition.
		Flashing red 1 s rate	Device operational but has a fault listed which requires acknowledgment.
		Red	The device has an unrecoverable fault; may need replacing. Flashing sequence and rate of Status2 LED indicates fault class.
Sta-tus2	Commu-nication status	Off	No Modbus/TCP connection.
		Green	Modbus/TCP connection established.

SPECIFICATIONS

Power supply	
Voltage	10-30 V DC
Current	30 mA typical @ 24 V DC
Intrinsic consumption	750 mW
Electromagnetic compatibility	
Emissions	AS/NZS CISPR 22 / EN 55022 (Class A)
Immunity	EN 55024
Electrostatic discharge	EN 61000-4-2
Radiated RF	EN 61000-4-3
Fast transients	EN 61000-4-4
Conducted RF	EN 61000-4-6
Enclosure	
Material	Self-extinguishing PC/ABS blend (UL 94-V0)
Mounting	35 mm DIN rail (EN 60715)
Classification / Type rating	IP 20 / NEMA Type 1
Cooling	Convection
Environmental	
Operating temperature	0 to 60 °C / 32 to 140 °F
Storage temperature	-25 to 85 °C / -13 to 185 °F
Humidity rating	10 to 95% relative humidity, non condensing
Operating ambience	Free from corrosive gas, minimal dust
Physical	
Dimensions	101 x 22.5 x 120 mm / 3.98 x 0.886 x 4.72 in
Weight	0.12 kg / 0.265 lb
Compliance	
Australia	C-Tick
Europe	CE, RoHS
USA	FCC Part 15 (Class A)
Canada	ICES-003 (Class A)

Specifications subject to change without notice.

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